

Heat Illness Prevention for Workers

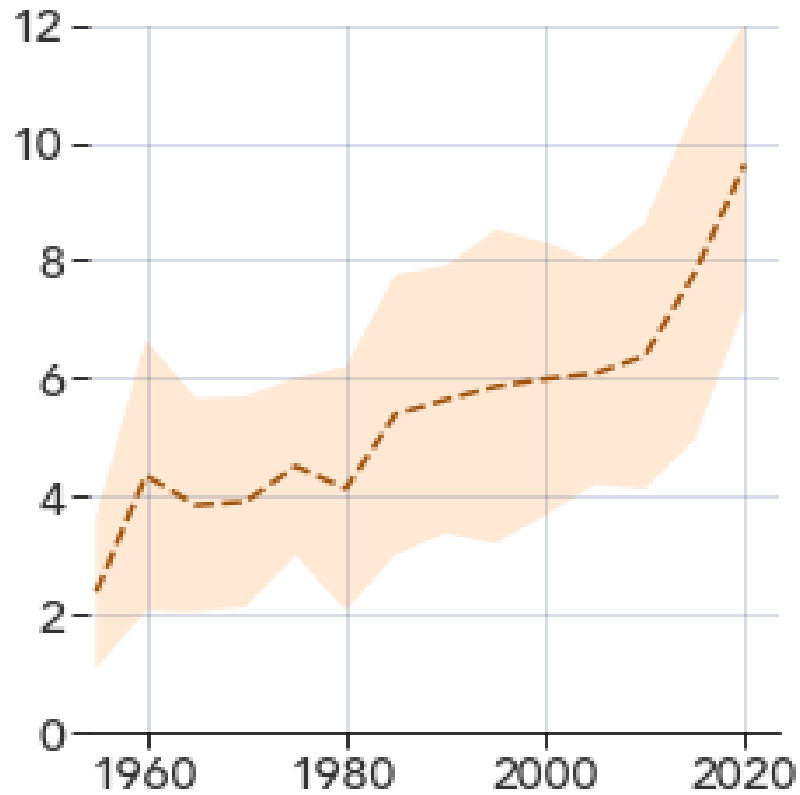
- Importance of heat illness prevention
- Water
- Shade & Rest
- Signs, symptoms, and treatment of heat illnesses
- Acclimatization, environmental & personal factors
- Rights & obligations of workers



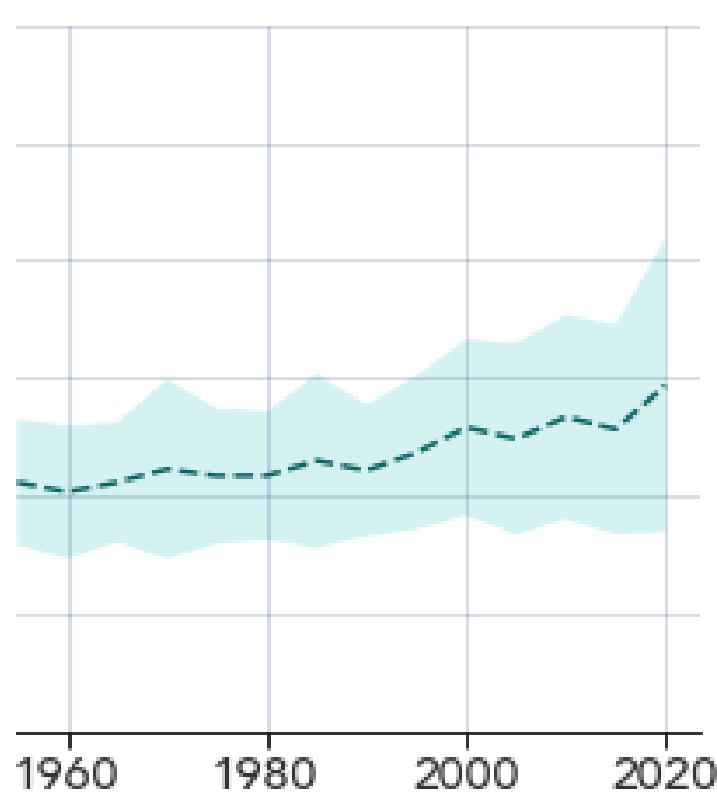
More Frequent, Longer, and Higher Temperatures

Heatwaves affecting inland, urban California are on the rise

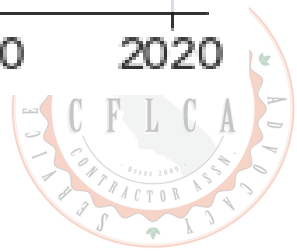
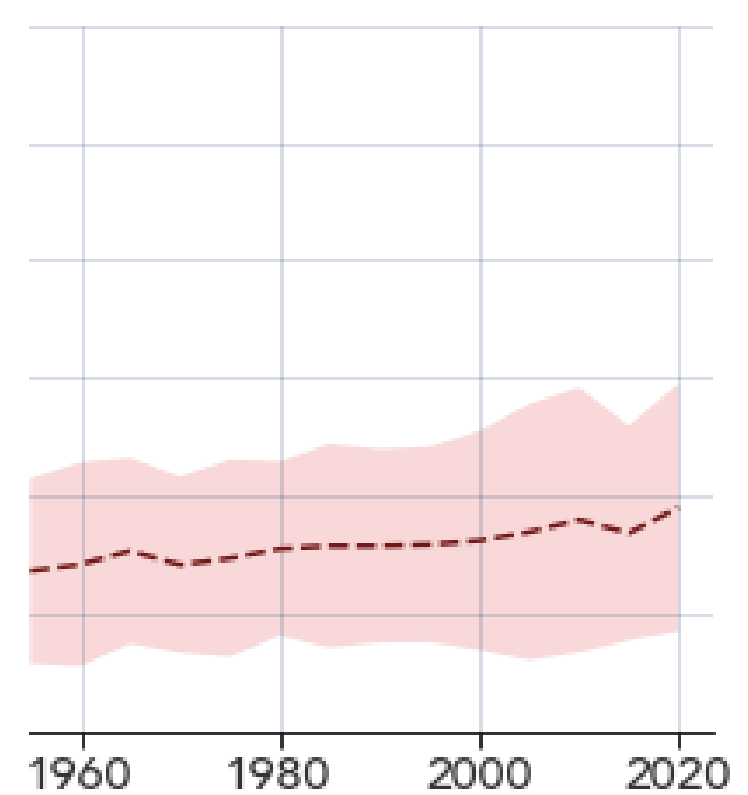
Heatwaves per year



Heatwave duration (days)



Heatwave intensity (°C)



Have you ever experienced heat illness?

Or seen someone else suffering from heat illness?



Heat Illness Tragedy

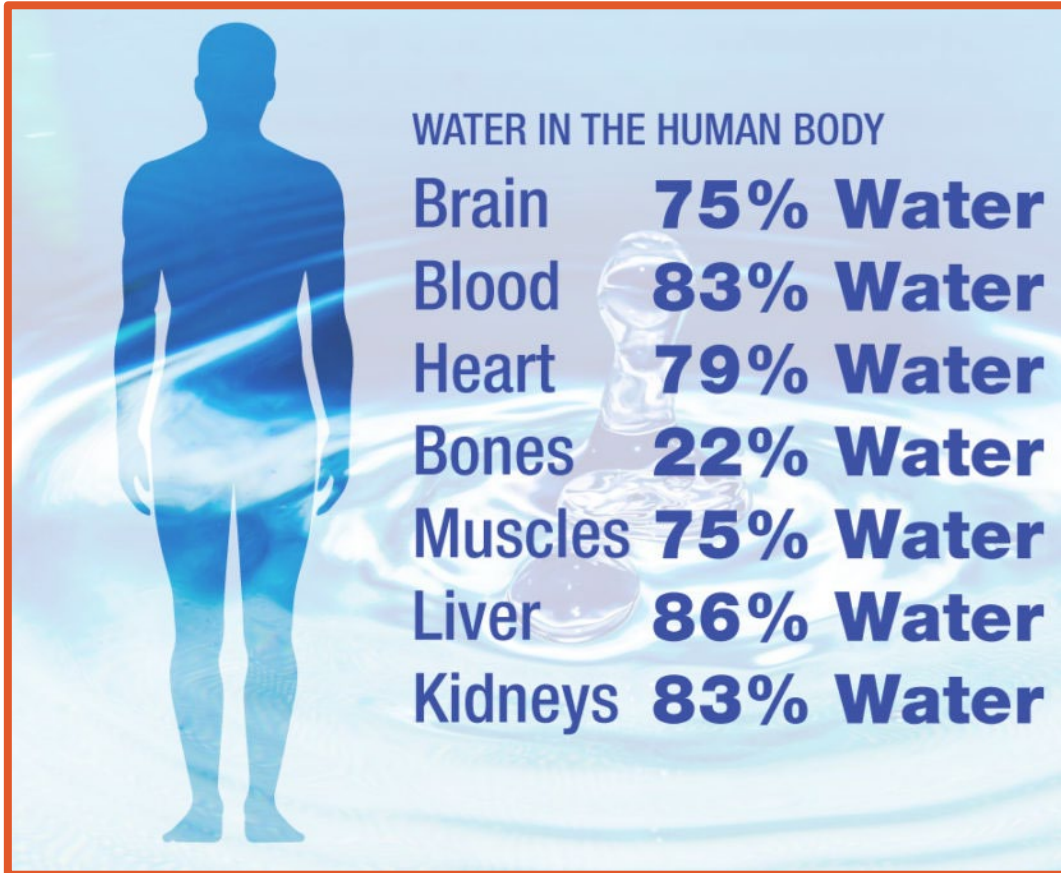
Maria Isabel Vasquez Jimenez, recently immigrated, fainted her fourth day of work in a vineyard outside Stockton during a heat wave. The supervisor allowed coworkers to drive her for care, but they only took her to an emergency room **three hours later**. Maria died two days later and it was discovered that she was two months pregnant.



Jimenez's fiancé, Florentino Bautista, 19 (right), and her brother, Jose Luis Vasquez, 20 (second from right), stop at a rest break along the 50-mile march route from Lodi to Sacramento.



Drink Plenty of Water - Frequently



Staying hydrated is critical to preventing heat illness

Take frequent small drinks
- Drink every 15 minutes

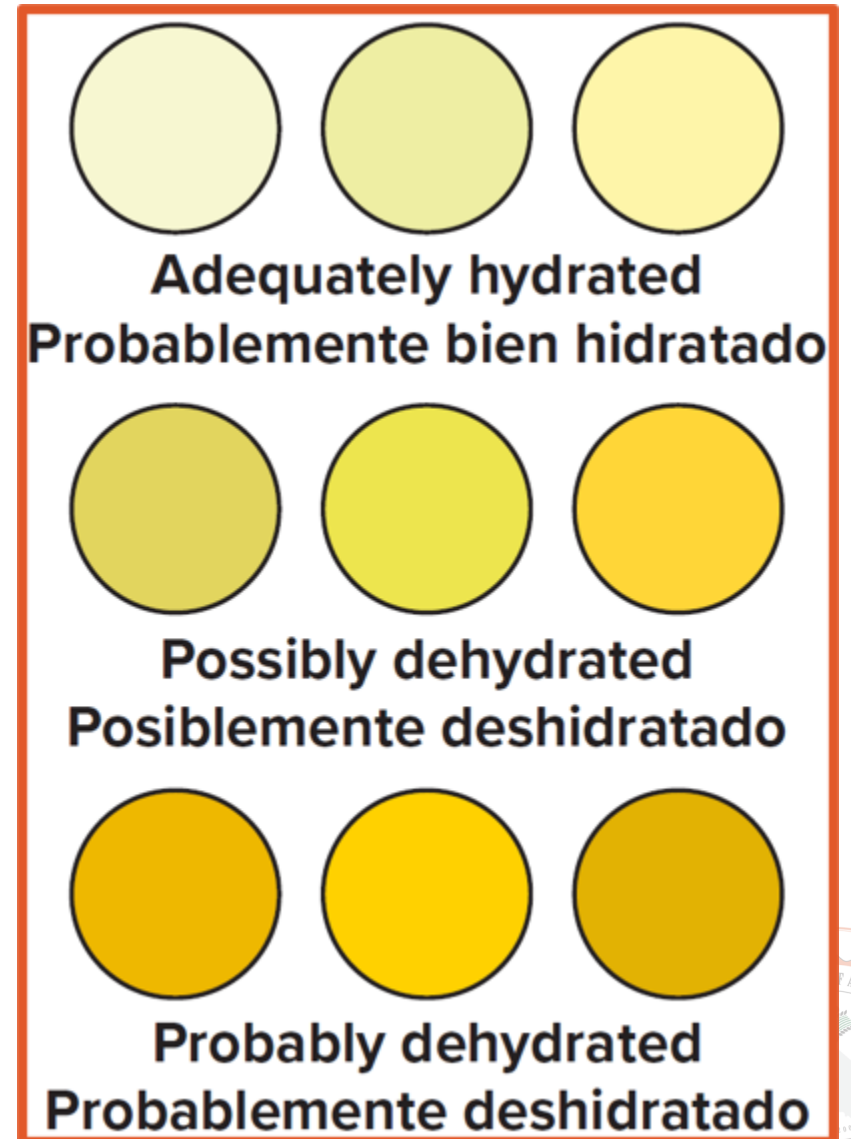


Don't Wait Till You Are Thirsty

Being thirsty means you are already dehydrated

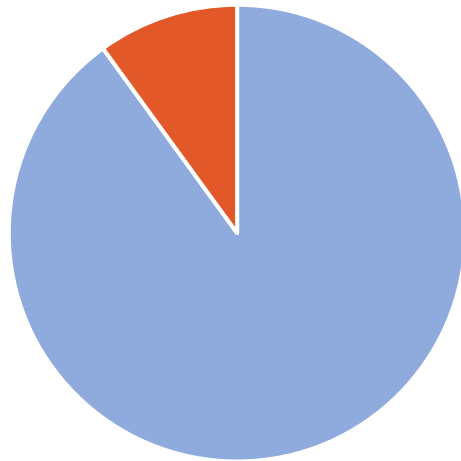
Water is best

- Can drink water with gatorade
- Soda, energy drinks, etc. can dehydrate you more because of the sugar and caffeine



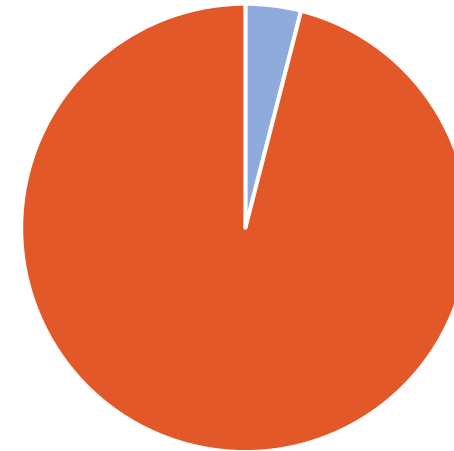
Stay Hydrated Before, During, & After Work

90% of Worksites Have Water Onsite



■ Have Water ■ No Water Onsite

But 96% of Workers Suffering Heat Illness are Dehydrated



■ Hydrated ■ Dehydrated

Research shows most employees show up to work already dehydrated



Rest & Shade

- Shade will be up when 80°F and above.
- Shade is available upon request at any temperature.
- You have the right to take a 5-minute preventative recovery break.
- Tell your supervisor immediately if you are experiencing any symptoms of heat illness.



Rest & Water = Improved Production

2016 Researchers gave sugar cane workers 3L water backpacks and implemented frequent rest breaks in shade.

- Water intake increased by 25%.
- Reports of heat stress symptoms decreased.
- Workers increased production by 40%.

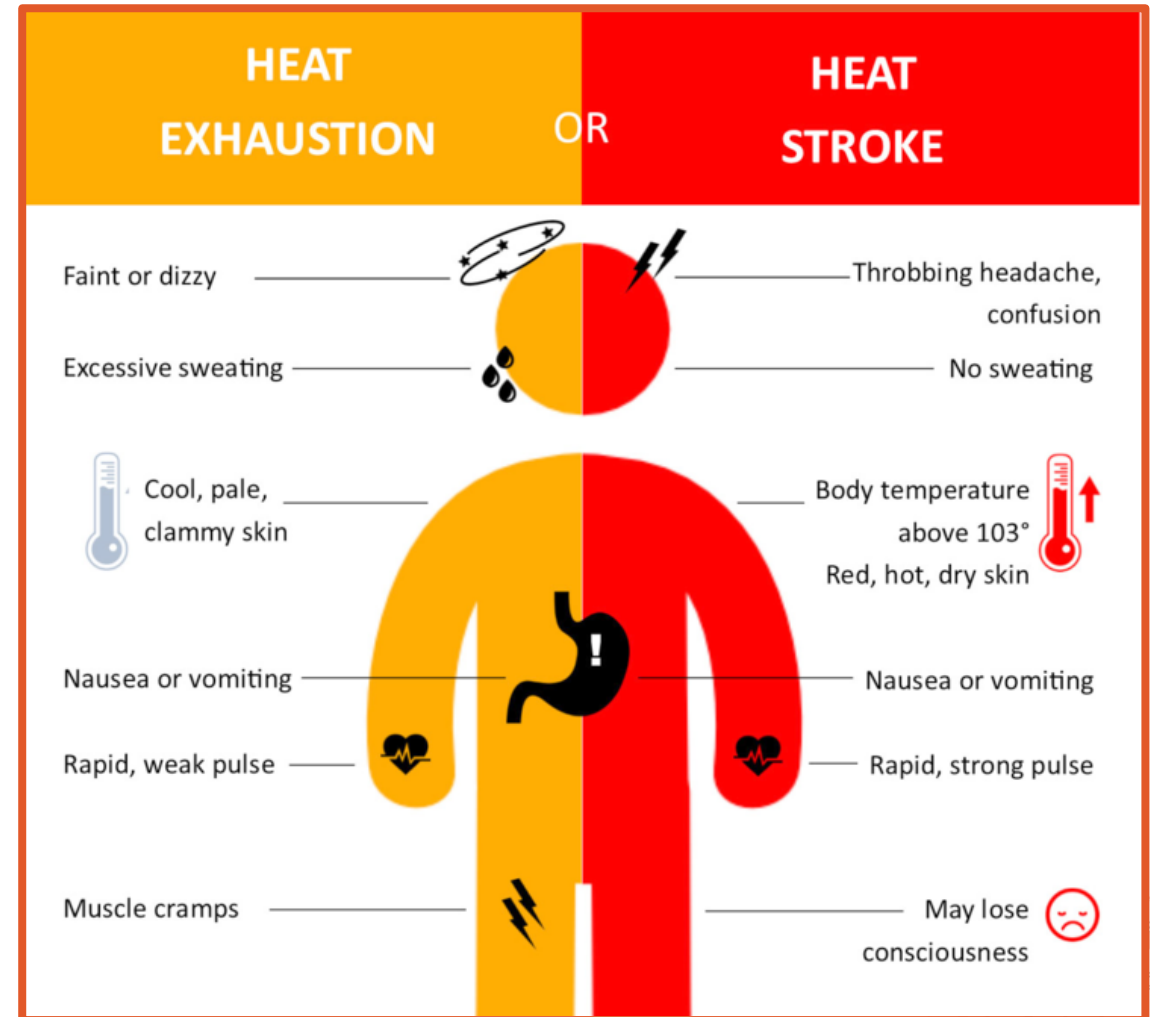


Taking breaks and drinking water can improve your performance!



What are Signs & Symptoms of Heat Illness?

- Fatigue or weakness
- Heavy sweating
- Cool, clammy skin
- Cramps or muscle spasms
- Headache or dizziness
- Nausea or vomiting
- Confusion or altered mental state
- Poor coordination



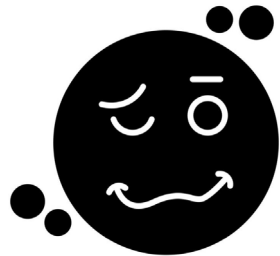
Identifying Signs or Symptoms

Symptoms of heat illness can make it difficult for the victim themselves to recognize.

Heat illness is often reported by coworkers- **Look out for each other!**

Victims of heat illness might appear drunk or inebriated

Stubbornness (refusing to drink water or take a break) can be a symptom





Heat Rash

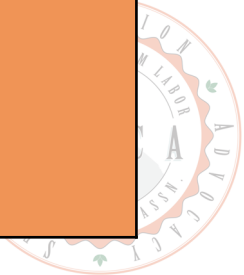
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|---|--|
| <ul style="list-style-type: none">•Red spots or clear blisters, usually on neck, chest, groin, or inside of elbows. | <ul style="list-style-type: none">•Rest in shade.•Drink water.•Keep rash area dry. |
|---|--|

Heat Cramps

- | | |
|--|--|
| <ul style="list-style-type: none">•Muscle cramps or spasms in arms, legs, stomach, or elsewhere.•Often presents after work has ended. | <ul style="list-style-type: none">•Rest in shade.•Drink water at regular intervals.•If cramps do not improve within 1 hour seek medical attention. |
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Heat Syncope (Fainting)

- | | |
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| <ul style="list-style-type: none">•Dizziness, light-headedness, or fainting.•Often after standing/rising suddenly after sitting, bending over, or lying down. | <ul style="list-style-type: none">•Rest in shade.•Drink water.•Sit or lay down. |
|--|---|





Heat Exhaustion

- Headache, dizziness.
- Extreme weakness, fatigue.
- Nausea, vomiting.
- Breathing fast and shallow.
- Heavy sweating.
- Skin is pale, cool, moist, and clammy.
- Decreased urine output.

- Rest in shade.
- Loosen/remove tight clothing or PPE.
- Drink water (small amounts).
- Cool skin with water, fans, or ice bath.
- Place cold wet cloth on head, neck, armpits, and groin.

Heat Stroke

**MEDICAL
EMERGENCY**

- Confusion, slurred speech.
- No sweating.
- Skin is hot, dry, and redish.
- Muscle twitches or seizures.
- Pulse is rapid and weak.
- Elevated body temperature (103°F+).

- Rest in shade.
- Loosen/remove tight clothing or PPE.
- Drink water (small amounts).
- Cool skin with water, fans, or ice bath.
- Place cold wet cloths on the head, neck, armpits, and groin.



Watch for Early Signs & Symptoms

Take action when early warning signs appear:

- Thirst
- Headache
- Muscle cramps
- Unusual fatigue
- Behavioral changes



Onset of severe symptoms can be rapid.

Not all experience every symptom,
some might 'skip' early stages.



Responding to Heat Illness

- Tell the supervisor.
- Move them to the shade or a cool place.
- Cool & Hydrate:
 - If conscious, have worker drink water slowly in small amounts.
 - Loosen or remove heavy clothing, PPE, shoes, socks.
 - Apply cool wet cloth to neck, under arms.
- If symptoms are severe or worsen, the supervisor will call 911.
- In case of emergency, **YOU** can call 911.



Emergency Medical Treatment

- Heat illness is serious and can be deadly.
- Heat illness can worsen quickly.
- Many heat illness deaths were victims that refused treatment, went home, and later passed away.



Acclimatization

- The body has to get used to working in higher temperatures.
- Even for experienced workers!
- Acclimatization usually takes 2-14 days of regular work for at least two hours per day in the heat.

Heat illness can happen at any temperature even 75°F can be hot if your body isn't acclimated to it.



Stigmatization Heat Related Illness

Workers may ignore symptoms or avoid taking breaks because they fear being made fun of, not being believed, or seen as weak.

Anyone can suffer from heat illness, even healthy experienced workers.



Miguel Angel Guzman Chavez

24 years old

Picking tomatoes in Georgia in 95°F

Heat stroke caused cardiac arrest

Died in 2018



Cruz Urias Beltran

52 years old, lifelong farmworker from Arizona

Detasseling corn in Nebraska in 91°F

Found with an empty water bottle

Died in 2018



Environmental Risk Factors

- Temperature
- Humidity
- Wind/Breeze (or lack of)
- Work hours
- Work load
- Pay system (hourly vs. piece rate)
- PPE or face coverings (e.g. wildfire smoke)



Personal Risk Factors

- Age
- Weight
- Fitness & Acclimatization
- Medical conditions (e.g. diabetes)
- Medications
- Beverages (sugar, caffeine, etc.)
- Alcohol
- Other drugs
- Clothing



Appropriate Clothing

Clothing can help protect against the sun and allow the body to cool, helping to prevent heat illness.

DO wear clothes that are:

- Lightweight
- Breathable fabric
e.g cotton, linen, rayon, wool
- Light colors
- Loose fitting
*Consider safety
- Long sleeves
- Wide brimmed hats

DO NOT wear clothes that are:

- Heavy or excessive layers
- Nylon, acrylic, polyester
- Black or dark colors
Absorb heat
- Tight or restrictive



Employee Rights

Access to:

- Water
- Shade
- Rest breaks (+10 minutes every 2 hours of work at 95°F and over)
- Communicate with supervisors/designated person
- Receive first aid

Retaliation is prohibited

Report any concerns to your supervisor or HR

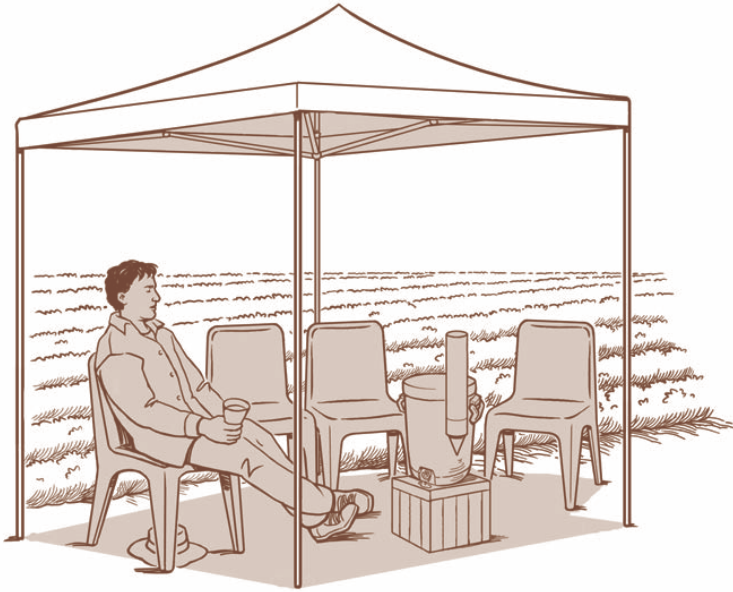


Obligations for Employees

- Take care of yourselves – hydrate & rest.
- Follow the company's policy.
- Know the signs & symptoms of heat illness.
- Report any signs you experience, or see in coworkers, including any unusual behavior.



Best Solution is Prevention



- ✓ Drink plenty of water.
- ✓ Take rest breaks in the shade.
- ✓ Wear the right kinds of clothes.
- ✓ Be careful in heat waves and before your body is acclimated.
- ✓ Watch out for each other.
- ✓ Report any signs or symptoms.



Questions?

